

From Man-Machine to Woman-Machine: Automata, Fiction, and Femininity in Dibdin's *Hannah Hewit* and Burney's *Camilla*

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When automata appear in fiction, in the late decades of the eighteenth century—most famously in *Evelina* (1778), but also in *Camilla* (1796) and in Charles Dibdin's novel, *Hannah Hewit, or The Female Crusoe* (1792)—they are a female concern. The term “automaton,” by this point in the century, refers not only to the models of humans and animals on display in London and on the continent but also to mindless, repetitive behavior. Both senses of the word attach primarily to women: female characters encounter the automaton not only as a material object but also as a machine-like state that besets the beautiful and the fashionable who do not or cannot think for themselves. The strong association between the automaton and femininity, which emerges in the 1770s and reaches its peak in the 1790s, represents a departure from earlier Enlightenment discussions of the human's relation to the machine, which are carried out in universalist language and are concerned with comparing the broad categories of human and machine rather than individual types. Though both of these ideas—the idea that the automaton in fiction is primarily a figure of femininity and the idea that earlier discussions of the relation between man and machine occur under the banner of Enlightenment universalism—are critical commonplaces, no one has addressed the relation between them. What is it that produces the shift from the human-machine comparison to the woman-machine comparison? And what is fiction's role in this transition? The answer I set out in the following pages draws on the history of automata as well as the development of eighteenth-century fictional forms, and focuses on two novels, *Han-*

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nah Hewit, or *The Female Crusoe* and *Camilla*. The reason automata get associated with femininity in these novels, I argue, is not merely because automata increasingly come to symbolize irrationality and failed autonomy but also because they are used as components of and commentaries on the marriage plot. Automata become feminized, in other words, in and through the marriage plot. It is telling, too, that automata are attached to the marriage plot not only in a female coming-of-age tale like Burney's, which we would expect to concern marriage, but also in a Robinsonade like Dibdin's, which we would not. Though the connection between automata and the marriage plot has different consequences in each novel, both use the automaton to bring animate women into contact with inanimate machines. Embedded in this ontological collision is a commentary on the narrative forms these novels are adapting.

Dibdin's novel in particular helps to answer the question I posed earlier—how to explain the feminization of automata—because it reworks the Robinsonade in a way that demonstrates that the earlier, putatively universal form of Enlightenment taxonomy, which distinguishes man from animal and machine, more or less leaves woman out. *Hannah Hewit*, in other words, compares woman to animal and machine in a way that reformulates earlier Enlightenment discourses. The connection between the automaton and the marriage plot emerges out of these comparisons and is relevant not only to the development of the Robinsonade across the eighteenth century but also to the background against which we can see Burney's polemic unfold. Burney has been the major author considered in critical studies of automata in fiction, but Dibdin's work is of substantial importance—both because *Hannah Hewit* builds an android automaton and because the novel engages the philosophical claims and technological innovations that accompanied the continuing development of automata in the late eighteenth century. *Hannah Hewit* situates its discussion of the automaton both within contemporary debates about the possibility of building a genuinely intelligent android and within longer-running debates about what distinguishes humans from animals and machines. It demonstrates that the feminization of the automaton is the product of a return, in the 1790s, to the recurrent Enlightenment question of just how firmly it is possible to draw a line between humans and other forms of life. The gendering of this taxonomy definitively presents the machine as lifeless rather than lifelike, and as a figure of what women must be careful not to become.

The broad goal of this essay is to show that fiction is instrumental to formulating the relation between automata and forms of life. The fictional treatment of automata consolidates their significance as objects that were likened to, as well as distinguished from, living humans, and does so in relation to the constraints facing women in particular. In the following pages, these developments are considered alongside the philosophical arguments

and practical innovations that paved the way for them, and the social field that received and responded to them. The philosophical thread begins with René Descartes and runs through mechanical materialism, notably the work of Julien Offray de la Mettrie. The practical innovations include developments in programmable clockwork-style mechanisms that allow automata to vary their responses rather than simply repeating a set sequence of actions over and over again. The social field centers on the growing popularity of exhibits of automata across London in the 1770s, 1780s, and 1790s. This account is distinct from the existing literature on automata—a field established by Alfred Chapuis and Edmond Droz's 1949 compendium, and developed more recently by Richard Altick, Simon During, Jessica Riskin, and Julie Park, among others—because of its emphasis on the causal role of fiction in gendering otherwise gender-neutral categories of Enlightenment discourse.¹ The story that has been told about automata, in the history of science and in intellectual history, emphasizes their role as simulators of human physiology, on the one hand, and as tools of sociability and aesthetic discernment, on the other. To the extent that their presence in fiction has been considered, it has been largely described as a figure for mindless female behavior (in Burney), or for the shifting preoccupations of the male sentimental protagonist (in Sterne, Mackenzie, and Smollett).²

1. See Alfred Chapuis and Edmond Droz, *Automata: A Historical and Technological Study*, trans. Alec Reid (Neuchâtel: Éditions du Griffon, 1958); Richard D. Altick, *The Shows of London* (Cambridge, MA: Belknap, 1978); Simon During, *Modern Enchantments: The Cultural Power of Secular Magic* (Cambridge, MA: Harvard University Press, 2002), and "'The Temple Lives': The Lyceum and Romantic Show Business," in *Romantic Metropolis: The Urban Scene of British Culture, 1780–1840*, ed. James Chandler and Kevin Gilmartin (New York: Cambridge University Press, 2005), 204–26; Julie Park, *The Self and It: Novel Objects in Eighteenth-Century England* (Stanford University Press, 2010); and Jessica Riskin, "Eighteenth-Century Wetware," *Representations* 83 (2003): 97–125, and "The Defecating Duck, or The Ambiguous Origins of Artificial Life," in *Things*, ed. Bill Brown (University of Chicago Press, 2004), 99–133. See also *Genesis Redux: Essays in the History and Philosophy of Artificial Life*, ed. Jessica Riskin (University of Chicago Press, 2007); and Gaby Wood, *Living Dolls: A Magical History of the Quest for Mechanical Life* (London: Faber & Faber, 2002).

2. Because the automata in Burney's work have until recently been the prime examples of automata in eighteenth-century fiction, automata have been overwhelmingly interpreted as figures for femininity. Both Claudia Johnson and Julie Park offer accounts of how the automaton, for Burney, demonstrates the paralysis women experience in the face of maltreatment and social difficulty. See Claudia L. Johnson, *Equivocal Beings: Politics, Gender, and Sentimentality in the 1790s; Wollstonecraft, Radcliffe, Burney, Austen* (University of Chicago Press, 1995); and Park, *The Self and It*. Deidre Lynch suggests that "automatized motion" casts light on the lives of women in the marketplace as well as on "what is equivocal about literary character . . . because it blurs the lines between a person and a thing, between intentional and coerced action." See Deidre Lynch, *The Economy of Character: Novels, Market Culture, and the Business of Inner Meaning* (University of Chicago Press, 1998), 197. Alex Wetmore suggests a link between men of feeling and feeling machines, arguing that virtue and the process of self-regulation were conceived as potentially automatic or mechanical activities. Wetmore's focus is primarily on male characters

The connection between the gendering of the automaton and earlier forms of taxonomy has gone unrecognized. The two genres of fiction I treat, the Robinsonade and the female coming-of-age novel, present the boundary between the woman and the machine as an ongoing negotiation. In each genre, the automaton puts pressure on what is understood to distinguish women from other life forms.

FROM MERE MACHINE TO MAN-MACHINE:
THE AUTOMATON IN DESCARTES
AND LA METTRIE

Before turning to automata in fiction, I want to briefly lay out a few aspects of their history that are especially relevant to their appearance in fiction. Automata, or self-moving machines, experienced great popularity throughout the eighteenth century. Most were human figures, roughly the size of large children: though their inner workings were composed of gears and pinions, they were housed in lifelike bodies, painted to resemble humans, and in a few cases covered with real skin. Typically, they performed a set routine, like playing a song on the flute. They were displayed in public spaces, pleasure gardens, and museums in London and across Europe, and became especially ubiquitous after 1770.³ Cox's Museum, a display of automata that was open to the public from 1772 to 1775, is one of the best-known exhibits: it attracted large crowds, was visited by Samuel Johnson and Frances Burney, among others, and features in a well-known scene from *Evelina*.⁴ But it is not merely the public's fascination with automata that accounts for their growing popularity at the end of the eighteenth century. Something else happens during this period as well: automaton technology becomes more sophisticated and more programmable, and this facilitates a change in what automata are designed to simulate. They move from replicating the work of the body to replicating the work of the mind. Whereas earlier models were built to model physiological processes, like breathing, blinking, and digestion, later models began to approximate

who get described as mechanical, and he explores how the mechanics of feeling illustrate a larger ambivalence about how sensibility affects masculinity. See Alex Wetmore, "Sympathy Machines: Men of Feeling and the Automaton," *Eighteenth-Century Studies* 43 (2009): 37–54.

3. The major displays of automata in London from 1770 to 1800 include Cox's Museum, in the Great Room, Spring Gardens (1772–75); Henri Louis Jacquet Droz's writer, draftsman, and harpsichord player in Covent Garden (1776); Kempelen's chess-playing Turk (1783–84); the speaking infant, exhibited in the Glass Warehouse near Haymarket (1785); and Maillardet's replicas of Jacquet Droz's figures, including a writer and a question-answering magician. See Altick, *Shows of London*, 62–71, 350.

4. For a reading of this scene that offers a detailed account of Cox's Museum and the Great Room, see During, *Modern Enchantments*, 215–58.

intelligence and reason.⁵ These figures write, draw, and speak; they answer questions and even play chess. Unlike earlier automata, which performed the same set of actions over and over again, these figures were advertised as responsive: they were theoretically able to respond to a changing environment.

These apparently intelligent automata were seen as extensions of the mechanical materialist idea that all living bodies operated like machines: if this was true, inventors surmised, it might be possible to build machines that would operate like living bodies. Though figures like these were first produced in the 1770s and 1780s, they had been imagined by earlier thinkers, like Descartes, who used them to think through the distinctions between humans, animals, and machines. In the *Discourse on Method* (1637), Descartes describes a thought experiment that uses automata to distinguish between humans (who have machine-like bodies but also possess consciousness) and animals (which also have machine-like bodies but lack consciousness).⁶ Descartes asks his reader to imagine that extremely sophisticated automata can be built, and to imagine comparing a living monkey with an automaton monkey, and then a living human with an android automaton. He goes on to claim that it would be impossible to distinguish between the living monkey and the automaton model because monkeys in particular and nonhuman animals in general do not have the capacity to reason: "If there were such machines having the organs and outward shape of a monkey or any other irrational animal," he writes, "we would have no means of knowing that they were not of exactly the same nature as these animals."⁷ In contrast, it would be easy to distinguish between a living human and an

5. Riskin is, to the best of my knowledge, the first to make the point that the vast majority of eighteenth-century European automata simulate organic processes. Her work on automata is indispensable. See Riskin, "Eighteenth-Century Wetware" and "Defecating Duck." Some of the examples Riskin cites are anatomies used as teaching models. A more extensive discussion of the historical and literary import of one particular type of anatomy, called the mechanical mother, which modeled the womb and was used to instruct midwives, can be found in Bonnie Blackwell, "Tristram Shandy and the Theater of the Mechanical Mother," *ELH* 68 (2001): 81–133.

6. Descartes addresses the human body in particular in the posthumously published *Treatise on Man*. This text takes the form of an extended metaphor that likens the body to a mechanical fountain, run by a rational fountaineer. Though Descartes's dualism is obviously in conflict with materialism's monism, and though his theological commitments are in conflict with the declared atheism of La Mettrie's later version of materialism, Descartes's account of the operation of bodies in *Discourse on Method* and *Treatise on Man* offers clear evidence of his materialist understanding of physiology. For a discussion of Descartes's idea of the machine body, see Lenora Cohen Rosenfield, *From Beast-Machine to Man-Machine: Animal Soul in French Letters from Descartes to La Mettrie* (New York: Octagon Books, 1968).

7. René Descartes, *A Discourse on Method*, trans. Ian Maclean (Oxford University Press, 2006), 46.

android, because even if this automaton could speak, it could not vary its responses as a living human could, and its lack of consciousness would become evident:

For we can well conceive of a machine made in such a way that it emits words, and even utters them about bodily actions which bring about some corresponding change in its organs (if, for example, we touch it on a given spot, it will ask what we want of it; or if we touch it somewhere else, it will cry out that we are hurting it, and so on); but it is not conceivable that it should put these words in different orders to correspond to the meaning of things said in its presence, as even the most dull-witted of men can do. And the second means is that, although such machines might do many things as well or even better than any of us, they would inevitably fail to do some others, by which we would discover that they did not act consciously, but only because their organs were disposed in a certain way.⁸

For Descartes, rationality and conscious action are the province of the human. Both the animal, whose body operates like a machine, and the automaton, whose body is a machine, are fundamentally nonrational: each might cry out in pain, but this is not enough to make them thinking beings. The emphasis on rationality, and in turn on communicative reason and language, creates a chasm between the human and the nonhuman and flattens the distinction between the animal and the automaton.

In the following century, the assertion of the equivalence between living bodies and machines persisted, not only in materialism but also in the discussion of automata design. Whereas for Descartes the mere machine cannot be rational, for La Mettrie it can, because “the excellence of reason does not depend on its immateriality.”⁹ La Mettrie’s idea that all living beings are organic machines driven by instinct allows for aligning a machine with thought and with moral behavior, so that “to be a machine, to feel, think, know good from evil like blue from yellow, in a word, to be born with intelligence and a sure instinct for morality, and yet to be only an animal [is no contradiction].”¹⁰ Here the machine is the central concept that makes life intelligible rather than a category distinct from or opposed to it, and feeling and thought are essential qualities of the machine. La Mettrie writes optimistically about increasingly sophisticated automata design, noting that in view of Vaucanson’s success with his duck and flute player, “a talking man [is] a mechanism no longer to be regarded as impossible.”¹¹ However, this does not therefore mean that his concept of the living machine necessarily

8. Ibid., 46–47.

9. Julien Offray de La Mettrie, *Man a Machine and Man a Plant*, trans. Richard A. Watson and Maya Rybalka (Indianapolis: Hackett, 1994), 28.

10. Ibid., 71.

11. Ibid., 69.

encompasses the automaton. La Mettrie conceives of the machine as organic, made from flesh and blood rather than gears and pinions, and he distinguishes between the machine of the living body, which is constantly learning and developing, and the machine of the android model, which is not.¹² This distinction, which is clear in La Mettrie's work, more or less disappears in the popular imagination, which uses the materialist concept of the machine to license the extension of feeling and thought to android automata. In the roughly twenty years between the publication of *L'homme machine* (1748) and the exhibition of "a talking man" and other intelligent androids, the idea that a thinking, feeling machine could be built, not born, gathers momentum. But if the conceptual promise of intelligent androids seemed to encourage the inclusion of automata in La Mettrie's category of the machine, the reality of these objects reasserted the fundamental difference between the living and the nonliving.

Whereas both Descartes and La Mettrie were only imagining the possibilities of the speaking automata they described, Dibdin and Burney were writing at a moment when exhibits of automata included apparently intelligent figures like Kempelen's chess player, a question-answering infant, and an oracular highlander. Skepticism about these figures was thick in the air, too: Samuel Johnson wrote in a letter that the question-answering infant must have been a fake, for "no mechanism can provide answers to arbitrary questions," and suspicions ran high about the mechanism driving the chess player, which was later revealed to be a small boy concealed in the cabinet upon which the chess player sat.¹³ What happens in fiction responds to these currents of opinion. Dibdin's use of the automaton restages both the optimism with which these figures were anticipated and the unevenness with which they were received. Burney, in contrast, begins from the assumption that the machine is fundamentally mindless, no matter how human it may appear, and imports the machine's definitive failure to approximate reason into her discussion of femininity. While in Dibdin the machine is radically opposed to the human, in Burney it is constitutive of it, and in both novels it is a limit-case of femininity.¹⁴ The trajectory I track, in considering the use of automata in Dibdin and Burney, respectively, presents a compressed reception history of android automata in the late eighteenth century and considers the conceptual consequences of these machines' fail-

12. See, e.g., *ibid.*, 38–39, 69–70.

13. Quoted in Altick, *Shows of London*, 68.

14. Burney's use of the automaton troubles the apparent genderlessness of the man-machine question. Before the automaton became associated with femininity, it was associated with the man-machine, which for La Mettrie was effectively the human-machine, but for writers of fiction like John Cleland and Laurence Sterne, was specifically masculine and concerned with economies of sex and sentiment.

ures to approximate reason or responsiveness. The stylistic and generic differences between Dibdin and Burney provide further explanation for their different uses of the automaton, as I will discuss, but what is common to both is that the introduction of the automaton into fiction brings the ideological content of certain formal conventions to light. The android automaton—the human machine—becomes a symbol of the pressures social norms exert on female protagonists.

WOMAN, ANIMAL, AUTOMATON: COMPANIONSHIP AND FEMININITY IN *HANNAH HEWIT*

Hannah Hewit, or The Female Crusoe is the third female Robinsonade written in English. Its two predecessors, *The Life of Charlotta du Pont* (1723) and *The Female American* (1767) hardly share enough in common to amount to a discernible genre, and both significantly depart from Defoe's original.¹⁵ Dibdin's novel, in contrast, reproduces the basic plot structure of *Robinson Crusoe*.¹⁶ Whereas Crusoe goes to sea in defiance of his father's wishes, Hannah Hewit sets out in search of her husband, who is overdue in returning from India. When she fails to find him there, she begins her return voyage, running aground off one of the Comoros Islands in the Indian Ocean, where she is marooned.¹⁷ It is here that her Crusoe story unfolds, as Hannah builds her dwelling, produces her own food, and interacts with the animals of the island. She fills her mornings with manual labor and her afternoons writing her life history. The activities with which she occupies herself, like building furniture and making a comb "formed out of the shell of a land crab," first supply her necessities and later "luxuries, as it would give a new spur to my genius, and employ my mind, ever active in those pursuits best calculated to expand it" (2:201–2). As the female Crusoe goes about her labors, the following question arises: can you place a female Crusoe on an island, expose her to various adversities, and produce the same kind of narrative as for Robinson?

15. There is also *Zelia in the Desert* (1789), translated from the French original. *Hannah Hewit, or The Female Crusoe* is the second novel to be advertised with the female Crusoe moniker (the other was *Zelia in the Desert*), and the first to include the phrase as a subtitle.

16. Though the plot of *Hannah Hewit* is somewhat less coherent than that of *Robinson Crusoe*, and though Hannah claims that she has not "read Robinson Crusoe, Alexander Selkirk, Peter Quarles, nor any of those books, which would of course have afforded me, in my situation, many serviceable hints," Dibdin explicitly modeled his tale on Defoe's novel. Charles Dibdin, *Hannah Hewit, or The Female Crusoe, supposed to be written by herself* (London: Printed for C. Dibdin, n.d. [1792]), 2:192, hereafter cited parenthetically in the text.

17. For a discussion of the relation between Dibdin's novel and the wreck of the Grosvenor, see Ian E. Glenn, "The Wreck of the Grosvenor and the Making of South African Literature," *English in Africa* 22 (1995): 1–18.

The answer is, unsurprisingly, no. The degree to which the introduction of a female protagonist changes the Robinsonade is instructive in clarifying just how much the Robinsonade is a tale of masculine adventure. The Crusoe figure, when shipwrecked, is cast back in time and into a state of nature: as he mixes his labor with the land, developing agriculture and later enclosure, he follows the trajectory of social contract. Ultimately, he comes to govern the other human and animal inhabitants on the island, which marks their collective entrance into civil society.¹⁸ Defoe's novel, like theories of social contract as well as later Robinsonades, imagines natural man as, quite literally, a man; the appearance of a female Crusoe breaks with one of the major conventions of the genre. This is in part because women are more or less invisible in the traditional Robinsonade; natural woman, as opposed to natural man, is not an operative conceptual category for the Robinsonade or for the political philosophy it engages. Women are necessary to the continuance of natural as well as civil society, but they are relegated to the periphery of its theorization as well as of its fictional representation in the Robinsonade. Take, for example, the single time Robinson Crusoe mentions his wife. In the space of two sentences, he notes that he married, "not either to my Disadvantage or Dissatisfaction," and had children, but that his wife died and he went back to sea as a "private Trader to the *East Indies*."¹⁹ The heterosexual marriage plot is peripheral to the Robinsonade because it happens off the island and disrupts the island's single-sex community of masculine individualism.

But even though there are no women on Crusoe's island, Crusoe enjoys a developed domestic and family life. He spends a great deal of time maintaining and improving his household, and in the twenty-four years he lives on the island before Friday arrives, he grows attached to his animals, taking pleasure in the company of his dog, teaching his parrot, Poll, to speak "so articulately and plain, that it was very pleasant to me," and taming a goat kid "[until] the creature became so loving, so gentle, and so fond, that it became from that Time one of my Domesticks also, and would never leave me afterwards" (152, 96). Crusoe develops his domestic economy first for survival and then for pleasure. The novel's politics do not separate the

18. Critics have read Defoe's novel as allied with Lockean as well as Hobbesian accounts of the social contract. See Manuel Schonhorn, *Defoe's Politics: Parliament, Power, Kingship and "Robinson Crusoe"* (Cambridge University Press, 1991); Nancy Armstrong, "Bourgeois Morality and the Paradox of Individualism," in *The Novel*, vol. 2, ed. Franco Moretti (Princeton University Press, 2006), 349–88; Peter Hulme, *Colonial Encounters: Europe and the Native Caribbean, 1492–1797* (London: Methuen, 1986), esp. 186–87, 217. Hulme is dismissive of readings of *Crusoe* as a tale of the move from natural to political society but does note the novel's Hobbesian interest in the sovereign's power of life and death over his subjects.

19. Daniel Defoe, *Robinson Crusoe*, ed. Thomas Keymer (New York: Oxford University Press, 2007), 256–57, hereafter cited parenthetically in the text.

realms of home and government but, instead, understand government to develop first in the household and later outside of it. As a result, the bonds of familial affection and those of sovereignty are deeply entangled, first with Crusoe's animal subjects and later with Friday. The goat is a loving "Domestic," and so is Friday, later in the novel. Though none of these subjects is female, femininity enters the novel by way of the homology between Crusoe's authority over his subjects, including his family, and the marriage relation.²⁰ Crusoe is the paterfamilias without a wife; his paternity is political, and it grants him domestic as well as public authority. Hannah Hewit, in contrast, is no sovereign; she is a wife missing a husband, and her interactions with the animals around her show her to be in search of, rather than in possession of, authority. This brings us back to the relation between the adventure plot and marriage: while heterosexual marriage between white Britons of similar station is more or less absent from the plot of *Robinson Crusoe*—we get those two lines, but that is all—companionship and domesticity shape the novel. This matters because the domestic is presented as the origin of the political and because Friday's relation to Crusoe resembles a marriage in certain ways, which demonstrates the centrality of marriage to the formation of political society while also romanticizing the relationship between sovereign and colonial subject.

When the novel fluctuates between describing Friday's relation to Crusoe as elective, on the one hand, and as a matter of life and death, on the other, it picks up not simply on the relationship between sovereignty and colonialism but also on the shadowy presence of marriage in this discourse.²¹ Friday is variously referred to as Crusoe's slave (the word appears only once), servant, and companion. As Roxann Wheeler has shown, the novel's relatively interchangeable use of these terms produces a crossover between these categories that reflects the multiple determinants of colonial relations (including religion, cultural practices, and race) at work in Defoe's text.²² Wheeler argues that it is essential to take into account not simply Friday's status as a

20. Race and religion are crucial factors that differentiate Friday as well, as I discuss. I do not mean to suggest that marriage is the or even a dominant mode of differentiating sovereign from subject in *Robinson Crusoe*, only that the marriage relation is invoked because sovereignty is represented in terms of protection and obligation, which bears obvious similarities to traditional expectations about the husband-wife pairing.

21. Daniel Carey notes this as well in "Reading Contrapuntally: *Robinson Crusoe*, Slavery, and Postcolonial Theory," in *The Postcolonial Enlightenment*, ed. Daniel Carey and Lynn Festa (Oxford University Press, 2009), 105–36, 121–22. Peter Hulme points to how *Robinson Crusoe* uses the romance form to simplify the colonial relation, going on to say that "the true romance in *Robinson Crusoe* is between Crusoe and Friday. They live in domestic bliss. . . . Though this [the delight Crusoe takes in Friday] is not easy to separate from a master's joy in a well-proportioned and healthy slave" (*Colonial Encounters*, 212).

22. See Roxann Wheeler, *The Complexion of Race: Categories of Difference in Eighteenth-Century British Culture* (Philadelphia: University of Pennsylvania Press, 2000), 86.

Carib but also as a non-Christian and as a former cannibal in considering how Crusoe understands and justifies Friday's servitude. Crusoe's concern for Friday's salvation, in conjunction with his deep affection for him, is crucial here because it diffuses their master/servant relationship into a benevolent, paternalistic, consensual relation in which Crusoe is the "benefactor" rather than "exploiter."²³ This can make Friday's attachment to Crusoe look like a bond of his own making. When Crusoe begins to discuss leaving the island, for example, Friday says that he would rather be killed than be separated from his master: "*You take, kill Friday; (says he.) What must I kill you for?*" said I again, He returns very quick, *What you send Friday away for? Take, kill Friday, no send Friday away.* This he spoke so earnestly, that I saw Tears stand in his Eyes: In a Word, I so plainly discover'd the utmost Affection in him to me, and a firm Resolution in him, that I told him then, and often after, that I would never send him away from me, if he was willing to stay with me" (191). Crusoe reads Friday's response as affection, but it is equally possible to read it as a literalization of Friday's awareness that his physical existence has come to depend on Crusoe. Though Hannah Hewit never puts it so starkly, in both novels a similar structure can be seen in operation, whereby one character cannot survive without his or her protector, to whom he or she is bound by enforced but affectionate consent. However much we might hope to find untroubled mutuality between these Crusoes and their companions, it is structurally unavailable to them. Read in tandem, *Robinson Crusoe* and *Hannah Hewit* show that neither servitude nor marriage develops outside of a structure of obligation based on protection, a structure, in other words, where someone protects and someone else is protected.

Even so, we might imagine that the female Robinsonade offers potential to rewrite the traditional Robinsonade and specifically to challenge the link it forges between masculinity and the governance of oneself and others. After all, the female Robinsonade removes its female protagonist from present or impending conjugal domesticity and maroons her on an island to meditate on the social forms available to independent women. This would appear to present an opportunity for utopian feminism and for the imagination of new social forms. In the German tradition, this is often the case, as Jeannine Blackwell has documented, but in Dibdin's novel, it is not, or not so in any straightforward way.²⁴ Though Hannah Hewit is highly skilled as an inventor, architect, and builder, as any Crusoe must be, she neither settles comfortably into a single-sex domestic arrangement nor rises to great heights of individualism. In *Hannah Hewit*, the female Robinsonade provides more of an occasion for satire than for egalitarianism; and though

23. Ibid., 81.

24. See Jeannine Blackwell, "An Island of Her Own: Heroines of the German Robinsonades from 1720 to 1800," *German Quarterly* 58 (1985): 5–26.

Hannah Hewit is highly capable, her ambivalence, at best, and abjection, at worst, about her separation from her husband is so pervasive that it subordinates the adventure plot to the marriage plot. Rather, it draws the marriage plot out of the adventure plot. Stuck on an island, the female Crusoe is not acting out a political fiction of social contract but mulling over one of its corollaries: the demands and desires that follow from, and are concentrated in, the conjugal imperative.

Marriage is never far from the novel's focus and is a prime mover of the plot as well as a magnet for much of the desire articulated by Hannah while she is marooned. Unlike the traditional Robinsonade, whose relation to the marriage plot is only implicit, the female Robinsonade is constituted in clear relation to it. Marriage is behind many of the major episodes of Diddin's novel, including Hannah's shipwreck. Her yearning for male company is a frequent refrain, and in the absence of human companions, she develops emotional attachments and aversions to animals. This reprises a stock feature of the traditional Robinsonade but changes its significance: whereas in *Robinson Crusoe* human-animal relationships are described in terms of sovereignty, in *Hannah Hewit* they are glossed as affective exchanges with conjugal or maternal overtones. Crusoe relates sitting down to dinner with his "little family" of animals and remarks, "I had the lives of all my subjects at my absolute command. I could hang, draw, give liberty, and take it away . . . to see how like a king I dined, too, all alone attended by my servants!" (125–26).²⁵ Here sovereignty is bound up directly with the sovereign's exclusive right to the justified use of violence. This recalls the remark Carl Schmitt makes about Hobbes, that "the *protego ergo obligo* [I protect, therefore I obligate] is the *cogito ergo sum* of the state."²⁶ If *protego ergo obligo* is Crusoe's motto, it is hardly Hannah Hewit's. Hannah does not consider the creatures around her subjects, and insofar as she forms relationships with them, they are represented as benevolent and loving (as in the case of her companion lion, Leo) or violent and suggestive of unwanted sexual advances (as in the case of the baboon that embraces her). These two animals, the lion and the baboon, represent opposing forms of masculinity: the former will protect Hannah from the latter and from its aura of racialized fears about predatory sexuality. Hannah seeks the protection of these creatures, rather than protecting them; she resides within the logic of *protegor ergo obligor* [I am protected, therefore I am obligated]. She, like Crusoe's family of

25. Once Crusoe has acquired human subjects as well, he reflects further: "it was a merry Reflection which I frequently made, How like a King I look'd. . . . My people were perfectly subjected: I was absolute Lord and Law-giver; they all owed their Lives to me, and were ready to lay down their lives, *if there had been Occasion of it, for me*" (Defoe, *Robinson Crusoe*, 203).

26. Carl Schmitt, *The Concept of the Political*, trans. George Schwab (University of Chicago Press, 1996), 52.

animals and later, like his human subjects, is not sovereign but subject. To the extent that a political fiction of protection and obligation underwrites the female Robinsonade, then, its paradigmatic form is not the relation between sovereign and subject but that between husband and wife.

Hannah Hewit is a testament to the fact that the marriage plot can suffuse even the genres that, on the surface, appear to resist it. Hannah Hewit's mental life is shaped throughout by the constraints the marriage plot places on what can be thought or desired. Even though Dibdin is writing against the backdrop of the debates about women's roles and rights in the 1790s, and even though the female Robinsonade has potential as a feminist form, *Hannah Hewit* toes a conservative line about women. The novel is formally playful and uneven in all kinds of ways, but it is consistent in its message that female autonomy is a contradiction in terms. Autonomy, as it operates in the Robinsonade, is masculine, though not available to all men, and is categorically unavailable to women—both Friday and Hannah Hewit lack it. The gendering of autonomy—which is more or less invisible in contract theory—becomes apparent when even the most technically competent female Crusoe, as Hannah Hewit is, cannot fully function outside of marriage and reproductive domesticity. Like Friday, Hannah does not fulfill the conditions of the sovereign, and her interactions with her companions, like Friday's, are presented as proof of her nonautonomy.

So it is clear that the female Crusoe is not interchangeable with the male Crusoe. But at this point a more particular question comes into focus: what do Hannah Hewit's adventures tell us about the use of human-animal or human-machine encounters to describe the experience of femininity and marriage in the 1790s? What is it that makes woman a category to be taxonomized alongside animals and machines? It is a truism that the late Enlightenment is concerned with what marks man out from other categories of being, like animals and machines, but this discourse is often understood as gender neutral. In Dibdin's and Burney's novels, it is anything but: the question is not about man, animal, and machine, but woman, animal, and machine.²⁷ Each can be read as displaying the broken fragments of Enlightenment universalism, and each is shot through with an awareness of how

27. In *Foe*, J. M. Coetzee's rewriting of *Robinson Crusoe*, Coetzee suggests that there was a woman, Susan Barton, on the island all along, and that she brings the adventure tale to Mr. Foe, the author of *Robinson Crusoe*, only to be written out of it. Coetzee's point is not only that the marriage plot is part of the Robinsonade from the beginning but also more specifically that this has taxonomic implications for women. In a scene oddly reminiscent of *Hannah Hewit*, Susan Barton remarks, "Before setting out to perform his island duties, Cruso gave me his knife and warned me not to venture from his castle; for the apes, he said, would not be as wary of a woman as they were of him and Friday. I wondered at this: was a woman, to an ape, a different species from a man? Nevertheless, I prudently obeyed, and stayed at home, and rested" (J. M. Coetzee, *Foe* [London: Penguin, 1986], 15).

different woman is from man, in the rights afforded her and in the foundational tales told about her.

In view of this, Hannah Hewit's encounters with her companions, both animal and machine, are significant not only in relation to the Robinsonade as a genre but also to the broader question of how the 1790s used animals and especially machines as figures to reflect female thought and behavior. This is not to suggest that these fictions turn women into animals or machines, though Burney gets close, but rather that these categories perform gendered work in these texts. As I have noted above, much of Dibdin's novel follows the format of *Robinson Crusoe* relatively closely, and at first it seems as if Hannah Hewit is simply constructing a slightly more luxurious life for herself than Crusoe does. Again, like Crusoe, she interacts with the animals on her island, finding them at turns threatening and welcoming, but nevertheless seeking their company. But the way she interacts with these animals definitively sets her apart from her male predecessors: her encounters with animals are framed by the question of whether the animals are sufficient substitutes for the companionship of her husband. The woman-animal interaction is never merely one of friendship or labor, but one that evaluates animals' potential as surrogates. Animals on the island seem to occupy one of two extremes: either they are hostile, and their hostility is glossed as an unwanted sexual advance, or they are friendly, and their friendship is presented as an important source of companionship. So, for instance, when Hannah is nearly attacked by the monkeys and baboons on her island, her description of this encodes an obvious but sublimated fear of the sexual aggression of subaltern men. And when she takes an orphaned young lion into her care, her relationship with this lion, Leo, is from the beginning presented in companionate terms. Here, the animal embodies both protective and predatory instincts and is used to naturalize a division between European and non-European men, the former being domesticated and the latter, wild.

This is made explicit by the way Hannah frames her first encounter with him: seeing Leo, she says, makes her think of the episode of Una and the lion from *The Faerie Queene*. Una encounters the lion when she is traveling alone and tames him with her beauty, so that he becomes her protector and guards her chastity as she travels in search of her suitor, the Red Cross Knight.²⁸ The substitutive logic here—when a young lady is without her

28. The lion initially charges Una but stops once he has recognized her beauty: he, "with the sight amazd, forgat his furious forse." As for the lion's protection of Una's chastity, "The Lyon would not leaue her desolate, / But with her went along, as a strong gard / Of her chaste person, and a faithfull mate / Of her sad troubles and misfortunes hard." See Edmund Spenser, *The Faerie Queene*, ed. Thomas P. Roche Jr. (New York: Penguin Books, 1978), 1.3.5.9, 1.3.4.1–4.

suitor, she requires protection from a male who will not usurp her lover's place—is transferred directly into Dibdin's novel. The intelligence of animals is presented within the context of women's need for protection; female kindness to animals secures their loyalty and defense. It is notable that Hannah (and Una) win over their animal protectors with their beauty and feeling, and that their relationships with these creatures are described primarily in terms of emotional bonds that offer a placeholder for marriage. This is a far cry from the sovereignty Robinson Crusoe claims over his creatures, saying, "I could hang, draw, give liberty, and take it away" (125).

Both male and female Crusoes enter into domestic relations with animals and have command over them, but where the male Crusoe uses animals to experience being sovereign, the female Crusoe employs them as protectors and proxy husbands. In place of the contract theory that underlies Defoe's vision of the man-animal relation, Dibdin's novel invokes a chivalric tale to describe the woman-animal relation. The political fiction of male individualism is replaced by the female need for companionship, which is depicted both as a trope of romance and as a fact of contemporary life. Though Leo becomes a companion as well as a fellow laborer, carrying "three thousand bricks a day" in a pannier, he neither becomes Hannah's subject nor wholly replaces her husband (3:63). Nevertheless, Hannah goes so far as to consider the possibility that he is a reincarnation of her husband: "If I could prevail upon myself to believe in the doctrine of Pythagoras," she remarks, "I might be tempted to think that the soul of [John] Hewit, when it fled his existence, returned to inhabit this noble beast, that so he might yet be my protector" (3:116). Hannah's invocation of metempsychosis, which she cannot quite bring herself to believe, presents the female-animal relation as one of projected need. The inevitable shortcomings of the surrogate—of course a lion cannot be like a husband—point up female longing as an internalization of the broader formal difficulty of keeping a marriageable or married female character single. The slippage we see when Hannah is treating her companion lion as part animal and part man is not a reflection of a growing belief in animal sensitivity and intelligence so much as it is an indication that even the most capable woman knows that she cannot be left alone and so will do what it takes to secure a companion for herself, even if it is not a human but an animal or a machine.

Ultimately, Leo's inability to speak with Hannah wears on her, and she begins to worry that without an interlocutor, she will lose her reason. What happens next is the most peculiar episode in the novel, and surely also one of the oddest scenes in Anglophone literature of the 1790s: it harnesses Hannah's technical brilliance in service of her need to replace her husband. Hannah decides that, lacking a human companion, she will engineer an android automaton. Instead of finding Friday, as Robinson Crusoe does, she builds him. But instead of building a same-sex companion, as the

Robinsonade would typically dictate, she builds a male automaton that looks and sounds like her husband. Hannah's decision to build a model of her husband represents a radical revision to the stock Robinsonade plot—not only in introducing a machine into the mix but also in presenting the machine in the context of female need for male companionship. The male android is, among other things, physical evidence of how the marriage plot intrudes upon the adventure tale and how it has subtended it in previous, more masculine, incarnations. But perhaps what is oddest about this turn of events is the novel's deadpan tone. Hannah's narration focuses on the technical details of building the automaton and is utterly unself-conscious about the motivations behind her choice of companion. Even so, this portion of Dibdin's novel is notable for at least two reasons: first, it offers an impressively accurate account of contemporary automaton technology and, second, it presents a gendered account of the human-machine relation. In other words, the novel does not merely mirror this stage of technological development as part of a narrative of progress but also explores the regions of fantasy made available by these speaking automatons.

In contrast to the twenty-first-century paradigm of female androids with feminized appearances and voices, guiding GPS systems or directing users through a set of questions, the automata built and displayed in the late eighteenth century were by no means exclusively female. The android figures that captivated the public were male as well as female, and the figures that spoke or wrote—the figures, in other words, that were designed to exhibit intelligence, like the chess player, the draftsman, and the question-answering magician—were almost exclusively male. We know that many, but by no means all, of the audience members who went to see automata were female, and so in this regard *Hannah Hewit* follows convention in constructing a male android and supplying it with a female audience. Hannah's choice to reconstruct her husband is unorthodox, to say the least, but her description of what she hopes her figure will be able to do follows contemporary discussions of automaton design remarkably closely. Specifically, it captures the belief that late eighteenth-century automata presented a promise of greater animation and more personality than earlier models. Their ability to speak words or sentences made it seem possible that automata, in speaking, could manifest intelligence and could be built to be interactive companions. This is certainly the hope that motivates Hannah: "A common penny toy cries cuckoo as plain as the cuckoo itself," she observes, "[so] an automaton, or rather an autologon, might soon be taught to speak Italian" (3:92). English will present more of a challenge, but Hannah is committed to the idea that her "automaton should speak English; nasals, gutturals, and all" (3:92). She continues, "How I was charmed at the circumstance! It would be a sort of companion to me! It continually ran in my head, and I was determined to lose no time in bringing it to perfection"

(3:92–93). Hannah's use of the term "autologon," which is the first I have been able to find, draws a deliberate distinction between machines that are merely self-moving (automata) and those that can independently reason and speak (autologons). Dibdin is probably mocking the optimism of contemporary engineers with this neologism, but even so, Hannah's belief in the possibility of building a machine that could think and speak takes aim at the thoroughgoing skepticism, from Descartes onward, that a machine could display sensitivity akin to a human's.

As is so often the case, the execution of the concept does not entirely live up to Hannah's expectations. The machine's speech accounts for its magnetism as well as its limitations. This brings the fantasy of building a substitute husband up against the reality of how such a machine actually speaks and also directs attention to the problem of where this speech is coming from and just whose speech it is. Once Hannah has built the figure she installs a "pair of bellows" in it to simulate its lungs, as well as series of pipes built to serve the purpose of the vocal chords, throat, and mouth, using the mechanisms of wind instruments to mimic the human voice.²⁹ When this mechanism is completed, she programs it. She first teaches—this is her word—the figure a set of interjections. Here, Crusoe's initial lesson to Friday, in which he teaches him three words—"master," "yes," and "no"—gets reprised as "Oh, ah, humph, [spoken] as correctly as a critic who was asked if he recollected a particular beauty in Shakespeare" (3:94). Hannah's instruction of the automaton, like Crusoe's of Friday, encourages repetition of a set vocabulary. When Friday goes on to utter a series of short exclamations, like "O Master! O Master! O Sorrow! O bad!," he repeats and recombines what he has learned, and the repetition of the word "Master," which Friday uses in place of Crusoe's name, is a reminder of how the pair's relation is founded on Friday's obedience (194). Though both Friday and the automaton are taught to use language as a marker of their relationships to Crusoe and Hewit, respectively, and though their initial speech seems more

29. Hannah's account of how she builds her automaton is technically relatively precise and resembles the description of speaking machines that engineers like Erasmus Darwin and Wolfgang von Kempelen wrote. In 1771, Erasmus Darwin constructed a speaking mouth, using a silk ribbon for the larynx, and it said "'mama, papa, map, and pam' in a 'most plaintive tone'" (quoted in Riskin, "Eighteenth-Century Wetware," 105–6). Kempelen, the builder of the famous automaton chess player, undertook a speaking machine as well which replicated speech by using a mechanism in the form of a box on a table covered with a cloth (Chapuis and Droz, *Automata*, 322). He developed more sophisticated sound patterns than Darwin and was able to get his speaking machine to utter a wider collection of words, including "*opera, astronomy, Constantinopolis, secundus, Romanorum Imperator semper augustus*" by designing a mouth "made up of a funnel or a bell-shaped device made of stretchable rubber, which by virtue of its physical properties was almost as flexible as human speech organs" (Chapuis and Droz, *Automata*, 322). However, neither Darwin nor Kempelen was able to exhibit a speaking figure with the mechanism contained in the figure's body; Darwin exhibited a head and Kempelen a bellowed box.

like ventriloquy than genuine utterance, the effect is not precisely a comparison of Friday to a machine, because Friday continues to learn and is ultimately far more responsive than Hannah's automaton. Both are used for domestic purposes and speak without necessarily knowing the meaning of what they are saying, but Friday gains linguistic competence as he continues to speak. Though Friday's English is never fluent—Crusoe is always interpreting and rephrasing his remarks—he is not merely a machine. Yet his language never stops marking him out; his broken syntax and erratic speech distinguish him from Crusoe, his master.

This episode in Dibdin's novel brings the domestic desire of the Robinsonade plot to the surface in the form of the speaking android. When Hannah engineers the figure to transpose and retranspose words to "form different sentences," she reports that, "by this method, this kind of anagram in language, I made my figure converse pretty well" (3:95). Her description of what ensues both recalls and seems to challenge Descartes's point that an android automaton would not be able to produce language in a convincingly human manner. She relates: "At first I was wonderfully pleased with my contrivance, but there was something so hollow and so ghostly in the sound that, after a time, I grew perfectly shocked at it, particularly at night; and having taught it to say 'O ow I luv u Anna'; it spoke, or I fancied it spoke, so much in the tone of John Hewit's voice, who from a natural dialect pronounced with difficulty the aspiration H, that I began to fear it might introduce a melancholy which would trench upon all those laudable resolutions I had so properly and so firmly made" (3:95–96). "O ow I luv u Anna" is the one full sentence we know the automaton says; if it has others in its repertoire, we are not told about them. While Hannah is the source of the autologon's movements, speech, and behavior—she is the engineer behind all of this—her hope is that the autologon's speech will sound like her husband's. Her fantasy, in other words, is that she will encounter the machine and not apprehend it as a machine but, instead, as a companion.

The result is mixed: the autologon's voice sounds ghostly and hollow, and falls somewhere between animate and inanimate, a fantasy brought partway to life. This situation precisely fulfills two of the conditions Freud links to the uncanny: first, that "feelings of the uncanny" are often generated in situations where one is unsure whether an object is animate or inanimate, or when the lifeless bears close resemblance to the living; second, "that an uncanny effect often arises when the boundary between fantasy and reality is blurred, when we are faced with the reality of something that we until now considered imaginary, when a symbol takes on the full function and significance of what it symbolizes."³⁰ A further condition of

30. Sigmund Freud, *The Uncanny*, trans. David McLintock (London: Penguin, 2003), 141, 150.

the uncanny in *Hannah Hewit* is an uncertainty as to where a voice is coming from and whose voice it is. When the autologon begins speaking on its own, without Hannah's prompting, it causes Hannah to have a nervous fit, and she vows never to use it again. The paradoxical effect of Hannah's project is that when her model takes on the autonomy she seems to want it to have, the autonomy she herself lacks, she becomes unable to tolerate it. It becomes utterly unsettling when it speaks on its own (and it does so only once), because it mixes the inanimate with the animate too deeply. In contemporary robotics, researchers have developed a term to describe this phenomenon. The "uncanny valley," first described in a 1970 article by Masahiro Mori, designates how human subjects' responses to humanoid robots, which are on the whole positive, take a dip with robots that very closely resemble humans. Karl F. MacDorman, one of Mori's translators, summarizes the point as follows: "as robots appear more human, they seem more familiar until a point is reached at which subtle imperfections create a sensation of strangeness."³¹ Resemblance that is too close is *unheimlich*: it reasserts the difference between the simulated and the real by bringing them into close proximity.

In view of the formal comparison Dibdin's novel draws between the female Robinsonade and the traditional Robinsonade, the android may not be the only machine in the novel. The plot's inevitable conclusion in a reunion between Hannah Hewit and her husband, who is not dead after all, moves along with predictable regularity. The suggestion, only implicit here, but drawn out directly in Burney, is that women themselves become machinelike in their involvement in marriage plot. In tracing how the automaton explicitly becomes a figure for the female psyche (as it is in Burney) rather than simply a production of that psyche (as it is in Dibdin), I will turn to the issues surrounding how the automaton was classified and then to other popular uses of the term "automaton" as it related to women, particularly young women. First, however, I want to briefly turn back to speech and its sources in the Robinsonade.

PARROTING SPEECH: REPETITION AND RESPONSIVENESS IN ANIMALS AND MACHINES

It is hard to ignore the similarity between the scene in which Hannah is frightened by her automaton and the moment in *Robinson Crusoe* when Cru-

31. Karl F. MacDorman, "Androids as an Experimental Apparatus: Why Is There an Uncanny Valley and Can We Exploit It?" (paper published in the proceedings of the CogSci-2005 Workshop, *Toward Social Mechanisms of Android Science*, 108–18). An English translation of Mori's 1970 article is included as an appendix to MacDorman's paper. For the original article, see Masahiro Mori, "Bukimi no tani," *Energy* 7 (1970): 33–35.

soe is awakened by a voice calling his name. In each case, these are the first voices that the marooned protagonists have heard on their islands other than their own. Crusoe reports, "I was wak'd out of my Sleep by a Voice calling me by Name several times, Robin, Robin, Robin Crusoe, poor Robin Crusoe, where are you Robin Crusoe? Where are you? Where have you been?" He goes on to explain that the voice he hears is Poll's, his parrot's:

I was so dead asleep at first . . . that I did not wake thoroughly, but dozing between sleeping and waking, thought I dream'd that some Body spoke to me: But as the Voice continu'd to repeat Robin Crusoe, Robin Crusoe, at last I began to wake more perfectly, and was at first dreadfully frightened, and started up in the utmost Consternation: But no sooner were my eyes open, than I saw my Poll sitting on the Top of the Hedge; and immediately knew that it was he that spoke to me; for just in such bemoaning Language I had used to talk to him, and teach him; and he learn'd it so perfectly, that he would sit upon my Finger, and lay his Bill close to my Face, and cry, *Poor Robin Crusoe, Where are you? Where have you been? How come you here?* (121)

These plaintive questions place Crusoe's self-address in the mouth of a speaking parrot. Crusoe recognizes that he is the source of the phrases Poll utters, and that Poll has learned to speak by repeating the words and phrases it has heard Crusoe use. Unlike Hannah's automaton, which can only speak when set in motion (except at the end, right before Hannah turns it off), Poll can speak without Crusoe's direct assistance and can continue to learn. As a result, the status of Poll's speech is distinct from that of the automaton's: however mechanical it may seem, it is more voluntary. This shifts the parallels that are running between the texts. Whereas the automaton is initially presented as a mechanical Friday, the scene in which it speaks compares it instead to Poll. As the machine-human comparison gets refigured as a machine-animal comparison, the automaton persists in being less convincing than the living beings to which it is compared. The parrot proves a more spontaneous speaker than the automaton, even though it can only repeat the words it has heard Crusoe say, whereas the automaton has been built to replicate someone else's speech and does not repeat what Hannah says.

The speaking figure Hannah builds, and its comparison to Friday and Poll, unsettles the taxonomy that divides the human from the nonhuman based on speech and reorients the distinction by suggesting that responsiveness, which divides the animate from the inanimate, is in fact a far more significant quality. In the scenes that follow Hannah's decision to put her automaton away, she returns to the society of animals on her island, and Leo, her treasured lion, saves her from a baboon that tries to embrace her. When doing this, Leo has "tenderness . . . manifest in his eyes" and is "like a gallant Englishman"; his display of emotion, even though it is not articulated in speech, makes him more like a human than the android automa-

ton. Hannah Hewit's encounters with autologon and lion display the arc of public opinion about the possibility of a reasoning machine over the course of roughly two decades. In 1770, when Darwin and Kempelen begin to build their speaking machines, "inanimate reason," as one treatise on intelligent automata had it, was thought to be a genuine possibility, even though it was not yet realized.³² But by the 1790s, two of the most famous examples of intelligent automata, Kempelen's chess player and the speaking infant, had been exposed as fakes that relied on hidden humans. This, in conjunction with the fact that the genuine speaking machines that had been displayed had extremely limited capacities and could only respond with set phrases, tempered the optimistic belief in the development of reasoning machines. Either a human supplied the machine's apparent rationality, or the machine seemed like a frightening and uneven replica of a living being. If Hannah Hewit's response is any indication, a living animal is a better companion than a clockwork autologon because it can respond to a changing environment. By the time Dibdin was writing, then, the animal was no longer the main example of the nonrational being, as it was for Descartes; animals proved more alive and more responsive—more alive because more responsive—and better companions than machines.

THE DIFFICULTY OF LEARNING NOT TO BE AN AUTOMATON: AUTOMATA AND FEMALE EDUCATION

Despite the automaton's android appearance, it challenges the anthropocentrism of discussions of life and intelligence by demonstrating that the distinction between animate and inanimate is stronger than that between human and animal. In this regard, the dividing line is constituted not by language but rather by educability. Eighteenth-century automata, unlike humans and animals, cannot learn: they have no capacity for improvement or development. So even if automata can mimic physiological processes, they are fundamentally limited by their lack of sensory apparatus. This is what Rousseau suggests in *Emile* when he notes that if a man were born as an adult, that is, born full grown, he would be "a perfect ideot, an automaton" and would "see nothing, know nothing, understand nothing."³³ In *Emile*, the automaton is the figure of the perpetual child who never learns how to process the information it receives from its senses. In fact, real automata were frequently built in the form of children, and Kempelen

32. Carl Gottlieb von Windisch, *Inanimate Reason, or A Circumstantial Account of M. de Kempelen's Chess Player* (London: Printed for S. Bladon, 1784).

33. Jean-Jacques Rousseau, *Emile, or On Education*, trans. and ed. Allan Bloom and Christopher Kelly (Lebanon, NH: Dartmouth College Press, 2010), 8.

intended to house his speaking machine in the form of a child about six years of age, which he thought would be appropriate to the machine's tone and pronunciation.³⁴ But automata, unlike living children, do not grow or learn; they just repeat the same set of actions over and over again, drawing silhouettes of the king and queen, or playing a melody on the flute. Even though La Mettrie expresses the belief in *L'homme machine* that both animals and machines might speak, by the end of the century only the former option was held open in any seriousness. Mechanical mimesis reaches a limit when it comes to replicating responsiveness, demonstrating that the materialist principle of machinelike thought and feeling does not therefore mean that machines can think or feel. Even if there are certain aspects of human physiology that might function mechanically and might be replicated by machines, automata show that the notion of physiological mechanism does not therefore entail that of machine life.

In the Robinsonade, the automaton represents first the possibility and then the failure of machine intelligence. Hannah Hewit introduces and then dismisses the automaton as a potential companion, and her return to the society of animals highlights the genre's emphasis on responsiveness and sensitivity as the criteria for companionship and interaction. Animals prove less radically other than machines because their behavior can change and develop over time. This upends Descartes's assertion that animals cannot be behavioristically distinguished from machines and in fact helps to shift the epithet nonrational from animal to machine. The taxonomic work accomplished by *Hannah Hewit* is twofold: first, it clarifies that artificial intelligence, however persuasive it might be conceptually, is not equipped to overcome its artificiality, and that the differences between an inanimate android and a living human are far greater than those between humans and other animal species. Second, in directing attention to the issue of responsiveness, it highlights development and specifically education as important features of living beings. This lays the groundwork for the subsequent appearance of automata in Burney's *Camilla*, where they are part and parcel of the perilous project of female education, and they illuminate mindlessness and mechanism in different locales.

In 1796, the year *Camilla* was published, an educational treatise addressed to young girls uses the term "automaton" to describe women behaving badly, that is mechanically, without thinking. The automaton serves as a negative example of female conduct, and the young narrator, who acts as the exemplar, describes how she wishes to distinguish herself from these machinelike women: "The two ladies smiled, and told me, a woman was amiable, when she had wit and understanding; that they called

34. See Thomas L. Hankins and Robert J. Silverman, *Instruments and the Imagination* (Princeton University Press, 1995), 196.

fools, statues or automatons, because an automaton was a machine that walked, played on the flute, and did many other things, though it was nothing but a statue made of a piece of wood; and that fools spoke, walked, and did every thing without thinking, like an automaton.—Ah, ladies, said I to them, teach me what I must do to learn to think; for I should be very sorry to be an automaton.”³⁵ The idea that a young woman must learn not to be an automaton can be tied to a wider-ranging female educational project, as well as to how Burney’s fictions in particular depict such a project. The use of the term “automaton” to describe a mindless human character, specifically a mindless woman, retains the connotation of nonrationality we saw develop in response to the failure of machines to approximate intelligence. It presents mindlessness as the result of a certain form of femininity that does not prioritize reason and, in the most extreme cases, evacuates the body of it. This unfolds in complicated and contradictory ways in *Camilla*, but what is clear at the outset is that as the term “automaton” shifts into the register of metaphor, it is still primarily a designation of nonrationality. So the automaton, as it moves from a deserted island into the lives of young women navigating fashionable society, becomes much more explicitly a figure for the perils of being too beautiful or too ugly, too intelligent or too unintelligent. In the broadest sense, the automaton is mobilized as an object (i.e., something one might encounter) in *Hannah Hewit* and as a subject (i.e., something one might become) in *Camilla*. But the latter use of the term, as something one might become, designates a deeply impoverished state of mind. Whereas *Hannah Hewit* represents the attempt to make a machine like a human, *Camilla* describes humans—or rather, women—who have become machines. As the directionality of the project switches, it is no longer about the elevation, or even evolution, of machines, but about the devolution or impairment of women.

While the society depicted by the Robinsonade, comprising the Crusoe figure along with his or her animal and human companions, is in the broadest sense a political arrangement, it is also in some sense deeply solitary. This political fiction can include female protagonists but it is fundamentally nonreproductive: it reconstructs the fiction of the state of nature, then the natural emergence of the state, with a single human at its center. Dibdin’s female Robinsonade uses marriage rather than the social contract as its organizing principle, but it remains committed to both the solitariness and the nonreproductive aspects of the traditional Robinsonade. The society that concerns Burney, in contrast, is full of other people making demands and judgments: it is rarely solitary and it is fundamentally repro-

35. *Tea-Table Dialogues between a Governess and Mary Sensible, Eliza Thoughtful, Jane Bloom, Ann Hopeful, Dinah Sterling, Lucy Lively, and Emma Tempest* (London: Printed and sold by Darton and Harvey, 1796), 8.

ductive, not only in the sense that it is concerned with social reproduction but also in the sense that it is concerned with marriage's importance to the fate of families. *Camilla* follows the romantic lives of the Tyrold sisters, and their cousin, Indiana Lynmere, in the process presenting what might be called the female mind/body problem. The female mind/body problem is a specifically female version of the typical dualist question of how we understand the relation between, and comparative importance of, mind and body: its opposed terms are beauty and intellect, and it asks how a woman's appearance and her personality affect the way she fares within the marriage market. Burney makes a point of separating mind from body and body from mind to expose, by way of extremes, how the automaton—the beautiful, mindless female—represents the desired ideal as well as the prospect of being cast out of one's own mind. The women who get described as automata in *Camilla* have become machines—they look like humans, but they fail to reason and respond like humans.

Early in the novel, Sir Hugh, the Tyrold girls' wealthy uncle, lays bare the evaluative structure that governs much of the rest of the novel: "[He] was much struck with the beauty of his three nieces, particularly with that of Camilla. . . . 'Yet she is not,' he cried, 'so pretty as her little sister Eugenia, nor much better than t'other sister Lavinia; and not one of the three is half so great a beauty as my little Indiana.'"³⁶ Much of the novel's exploration of the female mind/body problem follows from the respective fate of these two beauties, Eugenia and Indiana. Whereas Indiana retains her beauty, Eugenia promptly loses hers. Under Sir Hugh's care, which proves deeply neglectful, the uninoculated Eugenia is exposed to smallpox and dropped from Sir Hugh's arms on a see-saw in the course of a single outing. Eugenia's fall leaves her with a permanent limp and her smallpox scars her face profoundly; when Sir Hugh visits her for the first time after these accidents, he sees "not a trace of her beauty left, no resemblance by which he could have known her" (29). He attaches female identity as well as female value to outward appearance, with the result that he thinks Eugenia has effectively become someone else and has lost her worth. Weeping, he exclaims that he will offer her "a guinea for every pit in that poor face": his desire to compensate her for the loss of her face's value equates beauty with earning power (30). The reparative fantasy of filling in Eugenia's pockmarks with coins imagines that Eugenia can only be restored to herself if her looks are restored, which is impossible; Sir Hugh expresses his dismay at how thoroughly the change in appearance has changed her by saying, "She's not like the same thing! . . . I can't so much as believe her to be the same, though I am sure of its being true" (33).

36. Frances Burney, *Camilla, or A Picture of Youth*, ed. Edward A. Bloom and Lillian D. Bloom (Oxford University Press, 1983), 11, hereafter cited parenthetically in the text.

As Eugenia turns to education, to develop her “moral beauty” by training her mind, her cultivated intellect and deformed appearance unfolds alongside its converse, Indiana’s vacant mind and perfect exterior (51). Indiana is described as a “beautiful automaton,” and later a “beautiful doll,” void of understanding as well as sympathy (191, 221). Eugenia, in contrast, has more understanding and sympathy, but proportionately more trouble in her romantic affairs, not only because she is prey to fortune hunters once she has been made Sir Hugh’s heiress, but also because she has been raised without mirrors and without an awareness of how serious her deformity is. All of this changes when a boy shouts at her, “What were you put up there for, miss? To frighten the crows?” (286). This prompts Eugenia to go into seclusion, and when Camilla goes to comfort her, Eugenia is so upset that her speech comes in short bursts: “But yet—at the age of fifteen—at the instant of entering into the world—at the approach of forming a connection which—O Camilla! What a time, what a period, to discover—to know—that I cannot even be seen without being derided and offended” (295). Eugenia then wraps herself in the curtains in a gesture of self-abnegation, hiding the body that has marked her.

Once Eugenia knows how she looks, another automaton figure enters the mix, but this beautiful, mindless woman moves quickly from the realm of the apparently ideal (which Indiana occupies) to the frightening. I suggested earlier that the automaton is both a desideratum and a threat; Indiana-as-automaton is the former, whereas this subsequent automaton figure, female, beautiful, and unnamed, is the latter. In this episode, Mr. Tyrold takes Camilla and Eugenia to see a stunning young woman, whom they first glimpse through a window and then see in her yard. It gradually becomes clear that this woman is an “idiot,” as she laughs shrilly, turns round “with a velocity that no machine could have exceeded,” and repeats short phrases, like “Good day!” (309). As they continue to watch her, she drools and tears off her handkerchief, stretches it tight across her face, and proceeds to strike herself on the head with her hands (309). When the woman repeats set phrases and motions over and over again, she resembles an automaton far more closely than Indiana does. This scene presents a grotesque version of mindless beauty, and, like the footrace between old women in *Evelina*, it devolves human characters into object lessons that elicit both sympathy and schadenfreude. It is harnessed to the lesson that being mechanical—being like an automaton—is a far worse fate than being ugly. But the novel expresses ambivalence on this topic, and when Eugenia responds by saying, “Will any egotism ever again make me believe no lot so hapless as my own! . . . I will call to my mind this spectacle of human degradation—and submit, at least with calmness, to my lighter evils and milder fate,” her self-chastisement does not stop to register that she is no more responsible for her appearance than this young girl is for her disability (311). Mr. Tyrold’s

pat reinforcement, "You have seen, here, the value of intellects in viewing the horror of their loss; and you have witnessed, that beauty, without mind, is more dreadful than any deformity" seems to suggest that intellection is a balm for deformity, but rings false (311).

The automaton is a figure for the lack of female autonomy (the horror of the loss of intellect is also the horror of the loss of controlled response), but states of reduced autonomy are not limited to the automaton. In fact, they attach to almost every female character in the novel. If this episode is designed to place Eugenia in front of this living automaton (who is an automaton in part because she cannot learn) to demonstrate just how different they are, it does not wholly succeed in any straightforward way. Even though Eugenia recognizes her difference from the beautiful but senseless creature, this difference does not precisely entail autonomy but instead "shame" and self-regulation. The encounter between mindless beauty and physically deformed mind, in other words, does not triumphantly cast off standards of appearance to embrace self-determination but, instead, illuminates a complicated calculus of self-consolation and "reproof" (311).

This calculus and its limits cause another variety of machinelike behavior in *Camilla*. Whereas Indiana and the beautiful idiot are permanently automata, other female characters enter such states temporarily, often because of distraction. In the presence of Edgar, for example, Camilla does not know what book she has in her hand, because "she had held the book mechanically, and knew not what it was," and later, in a similar state, discussing her sister's naïveté about suitors, she is "irresistibly seized by a new train of ideas . . . she mechanically repeated his last word 'opinion?'" (195, 342).³⁷ This mechanical behavior indexes distress and temporary mindlessness as well as the social constraints governing polite behavior, and it is motivated by a surplus of feeling even though it displays none. When Camilla dances with Lord Pervil, "instead of finding the animated beauty . . . he seemed coupled with a fair lifeless machine, whom the music, perforce, put in motion" (714). Here, becoming a machine is a coping strategy, and Camilla's reduced autonomy does not simply follow from but, instead, causes her temporary lifelessness. This is not to say that Camilla chooses to become lifeless, but that these sequences of machinelike or mechanical behavior highlight the pervasiveness of obstacles to female self-determination. Ultimately, the implication is that any woman might become an automaton; the figure's reach expands beyond the mindless beauty to include other types of

37. Burney also describes minor characters obsessed with the vagaries of fashion as mechanical. Miss Dannel, for example, when she visits the Pantiles, "kept her mouth open, and her head jerking from object to object, so incessantly, that she saw nothing distinctly, from the eagerness of her fear lest anything should escape her." See *Camilla*, 394. On this topic, see also Lynch, *The Economy of Character*; and Park, *The Self and It*.

women, at least temporarily. This means that the automaton shifts from being an example of negative femininity to being an example of femininity as such. Though of course autonomy is only realized fully as a fantasy, and though a range of factors determine the possible actions of men and women in Burney's novel, the point remains that only women are described as machines. Their machinelike quality denotes a lack of intention and choice, and in view of this, the novel's interest in accidents and misunderstandings, events for which responsibility and blame is difficult at best, seems formally appropriate because it substitutes the language of chance or necessity for that of individual action and responsibility.

FICTION AND THE MACHINE: CLASSIFICATION AND THE VITAL PRINCIPLE OF CHANGE

Both *Hannah Hewit* and *Camilla* address a problem that has preoccupied the discourse of the machine body since Descartes—the comparative importance of bodily appearance and function, on the one hand, and mind-ness, on the other. They do so not to weigh the comparative merits of dualism and materialism but, instead, to think through the forms and boundaries of life as they relate not only to men but also to women. Dibdin's novel demonstrates, by way of its failed autologon, that the appearance of human form does not guarantee an intelligent being, and its evaluation of the sensitivity and responsiveness of animals and machines, respectively, occurs in the context of its revision of the Robinsonade to include a female protagonist. The entanglement between the female Crusoe and her animal and machine companions follows from a specifically female sociability. Dibdin rewrites the Robinsonade as an adventure that confirms the gravitational pull of the marriage plot. This in turn overlays the woman-animal-machine schema onto the man-animal taxonomy of Defoe's original, with the result that *Hannah Hewit* introduces an automaton into its state of nature to naturalize the female need for matrimony, much as *Robinson Crusoe* naturalizes Friday's servitude. On the most basic level, the Robinsonade uses divisions between kinds (man and animal, or woman and machine) to describe how particular political and social formations emerge. It is well established that the question of how man relates to animal provides the grounds for *Robinson Crusoe*'s discussion of sovereignty, but what is perhaps less obvious, in part because Dibdin's novel shifts from the serious to the satirical and back again, is that it too is telling a tale about the origins of particular social forms by presenting the boundary between the human and the android as specifically female. The female Crusoe's choice to use her inventive powers to recreate her husband offers the message that matrimony is an essential part of the female condition. It is here that the connection between Dibdin's and Burney's novels is clearest: both use the automa-

ton to indicate the importance of the conjugal imperative to the female imagination.

Whereas for Dibdin the automaton is expressive of what he considers a natural desire, for Burney it is indicative of how ideology shapes what it is possible to desire, say, or do. For each, the automaton represents something specific to femininity, either as it is imagined in its natural state or as it is experienced in a social setting. Crucially, however, in *Hannah Hewit* the automaton remains external to human life, whereas in *Camilla* it does not. So while in Dibdin's novel women are brought into contact with machines, in Burney's, they become them. Though Dibdin maintains a clear separation between kinds, Burney does not. *Hannah Hewit* is interested in representing the distinctions between women, animals, and machines to shore up the foundational role of marriage, and it never seriously considers the possibility of a genuinely hybrid form between woman and machine. Its taxonomy is focused on comparing the differences between broad categories without ever seriously transgressing the separation between them. Burney, in contrast, imports the machine into the lives and minds of her female characters and uses the figure of the automaton to represent a hybrid form. *Camilla* moves the work of taxonomy from an interspecies, inter-kind practice to an intraspecies, intra-kind practice.

While in *Hannah Hewit* the autologon can be put away once it has failed to fulfill its promise of inanimate reason, the automaton cannot be so easily partitioned from either organic or human life in *Camilla*. This is because the automaton is human, as we have seen, but not fully; it is an impaired being. Whereas *Hannah Hewit* excludes the machine from its social world, focusing instead on the shared community of humans and other animals, *Camilla* positions the machine as central to its social world. Here, the representation of the machine echoes later Romantic criticisms of the mechanical as something that has form imposed from without rather than developing from within, as Coleridge will later put it.³⁸ But crucially the machine, though inimical to life, is positioned in the middle of human life: in all cases but one, the women who display machinelike behavior do so as a result of, even a response to, others' evaluations of them. In other words, the female automaton is initially sensate but becomes insensate, and though it may be a stretch to say that it is educated into insensibility, for Burney the female automaton is the perverse result of a bad education that does not aim to develop its subjects into independent beings.

Despite the stark differences between Dibdin's and Burney's novels, together they demonstrate why the rise and fall of the eighteenth-century

38. "The form is mechanic, when on any given material we impress a pre-determined form, not necessarily arising out of the properties of the material" (S. T. Coleridge, quoted in Denise Gigante, *Life: Organic Form and Romanticism* [New Haven, CT: Yale University Press, 2009], 4–5).

autologon is significant not simply to the history of automata but also to the history of the human-animal debate and to the history of fiction more generally. I have suggested that fiction highlights the significance of automata by situating them in larger taxonomic projects. But it is also the case that automata highlight the significance of fiction or, rather, that they make a major feature of it visible: its interest in the contingency and the mutability of distinctions between different forms of life. It is not simply the presence of android automata but the failure of machines to seem like living creatures that defines the taxonomic aspect of these novels. Taxonomy, of course, entails inclusion as well as exclusion: the exclusion of android machines from reason and responsiveness helps to distinguish between the animate and the animated, while the presentation of women as machines demonstrates that these classifications of animate and animated can overlap. As Dibdin's and Burney's novels work to sort automata from lions, or fashionable from impaired women, they continue to refine constitutive divisions of life.

Both Dibdin and Burney use human or humanoid machines to trouble the apparently solid link between human form and intelligence. In each novel, the nonrational encroaches on the rational, and though this is motivated by different agendas in each text, in both cases it demonstrates that supposedly fixed categories such as the human and the machine can shift. This matters because it represents taxonomy as a continuing rather than an absolute process and as a central feature of fiction. It suggests, in other words, that taxonomy is not simply a concern of particular genres, like the Robinsonade, but a broader issue for late eighteenth-century fiction in general. The automaton places particular emphasis on the place of the machine in the concept of life, but it is by no means the only kind of fictional being that exists at or beyond the boundaries of the human during this period—others include speaking animals and objects, and disfigured or impaired humans. These characters often appear as tools of satire and sentiment, and they participate in what I have described as fiction's specific form of taxonomy, which is to say a demonstration of how category distinctions are hardly absolute. Automata, like these other borderline cases, allow fiction to experiment with different permutations of speech, appearance, and mindedness, and to elevate animals or devolve human characters. These moments precipitate localized shifts in the boundaries of categories of being while also revealing the intellectual infrastructure behind such shifts. Fiction's investment in the categories and forms of life does not ossify them but sets them in motion. This produces a variety of configurations which demonstrate that the crucial difference between animate creatures and animated machines is the former's ability to develop and change over time. The female's encounter with the automaton as a material object and as a state of mind underlines the importance of educability to human life. If the Romantic idea of life

arises in part because of the machine's radical otherness and lack of responsiveness—if life becomes associated with change and adaptation in part because the machine cannot change or adapt—what the automaton demonstrates is that the boundaries of life are not thinkable without the machine.